

**FANNING ROUTE GENERATION TECHNIQUE
FOR MULTI-PATH NETWORKS**

Abstract of the Disclosure

A fanning route generation technique is provided for multi-path networks having a shared communications fabric. The technique includes selecting a source node - destination node (S-D) group having common starting and ending sets of links from the network of interconnected nodes. Within this group, selecting the shortest routes between the S-D nodes of the group so that: selected routes substantially uniformly fan out from the source node to a center of the network and fan in from the center of the network to the destination node, thereby achieving local balance; and global balance of routes passing through links that are at a same level of the network is achieved.